

Remarks

In view of the above amendments and the following remarks, reconsideration and further examination are requested.

The specification and abstract have been reviewed and revised to make a number of editorial revisions. Due to the number of changes involved, a substitute specification and abstract have been prepared and are submitted herewith. No new matter has been added.

Claims 1 and 2 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Laveran (US 5,676,200) in view of Saito (US 4,702,079).

Claims 1 and 2 have been cancelled without prejudice or disclaimer to the subject matter contained therein. Further, new claims 3 and 4 have been added. Claims 3 and 4 are supported by the specification at least at page 6, line 21 – page 7, line 1 and Figures 2, 6, 7A and 7B.

It is submitted that the above-mentioned rejection is not applicable to the new claims for the following reasons.

Claim 3 is patentable over the combination of Laveran and Saito, since claim 3 recites a core structure having, in part, a plurality of seat plates arranged opposite to each other with a predetermined space interposed therebetween and having tubes and corrugated fins arranged alternately therebetween, the seat plates being provided with connection portions having main body portions and wall portions slanted from the main body portions toward the tubes and formed with tube holes through which the tubes are inserted to be fixed, wherein the connection portions also have first and second vulnerable portions which are thinner than the main body portions and the wall portions and in series on the wall portions, and the first and second vulnerable portions are formed at a position between the wall portions and the tube holes and a position between the main body portions and the wall portions, respectively. The combination of Laveran and Saito fails to disclose or suggest the seat plates having the first and second vulnerable portions as recited in claim 3.

Laveran discloses a heat exchanger having a header plate 10 with a web 12. The web 12 has a plurality of holes 18 each adapted to receive an end 20 of a tube 22. Each of the holes 18 is bordered by a collar 24 that is created by an annular fold 26 in an arm

28 of the web 12. The arms 28 each have a localized thinned portion A. (See column 2, line 63 – column 3, line 31 and Figures 3 and 4).

In the rejection, the localized thinned portion A is indicated as corresponding the claimed vulnerable portion. However, claim 3 now recites that the connection portions have first and second vulnerable portions which are thinner than the main body portions and the wall portions and in series on the wall portions. It is clear that Laveran only discloses the one localized thinned portion A in each of the arms 28. Further, the first vulnerable portions are recited in claim 3 as being at a position between the wall portions and the tube holes and the second vulnerable portions are recited in claim 3 as being at a position between the main body portions and the wall portions. It is apparent that the localized thinned portions A cannot meet both of these limitations. Therefore, Laveran fails to disclose or suggest the first and second vulnerable portions of claim 3. As a result, Saito must disclose or suggest these limitations in order for the combination of Laveran and Saito to render claim 3 obvious.

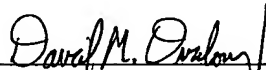
As for Saito, it is relied upon in the rejection as disclosing a number of fins 68. (See column 3, lines 10-32 and Figure 3). However, it is apparent that Saito also fails to disclose or suggest the first and second vulnerable portions of claim 3. As a result, claim 3 is patentable over the combination of Laveran and Saito.

Because of the above-mentioned distinctions, it is believed clear that claims 3 and 4 are allowable over the references relied upon in the rejection. Furthermore, it is submitted that the distinctions are such that a person having ordinary skill in the art at the time of invention would not have been motivated to make any combination of the references of record in such a manner as to result in, or otherwise render obvious, the present invention as recited in claims 3 and 4. Therefore, it is submitted that claims 3 and 4 are clearly allowable over the prior art of record.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance. The Examiner is invited to contact the undersigned by telephone if it is felt that there are issues remaining which must be resolved before allowance of the application.

Respectfully submitted,

Mitsuru IWASAKI et al.

By: 
David M. Ovedovitz
Registration No. 45,336
Attorney for Applicants

DMO/jmj
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
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